ELSEVIER

Volume 207, Numbers 1–2, June 1997

WEAR

Contents

Introduction vii

Screening the performance of lubricants for the ironing of stainless steel with a strip reduction test 1
J.L. Andreasen, N. Bay, M. Andersen, E. Christensen, N. Bjerrum

Application of advanced surface treatment technologies in the modern plastics moulding industry 6
E.J. Bienk, N.J. Mikkelsen

The influence of die geometry on tool wear in deep drawing 10
M. Eriksen

Simulation of mild wear in spur gears 16
A. Flodin, S. Andersson

The effect of pressurised gases on the viscosity of polyalkylene glycols 24
E. Höglund, U. Jonsson, Ö. Uusitalo

Oil film thickness measurement in the middle main bearing of a six-cylinder supercharged 9 litre diesel engine using capacitive transducers 29
K. Irani, M. Pekkari, H.-E. Ångström

Comparative study of shotblasted and electrical-discharge-textured rolls with regard to frictional behavior of the rolled steel sheet surfaces 34
M. Jonasson, T. Pulkkinen, L. Gunnarsson, E. Schedin

Environmentally adapted hydraulic oils 41
E. Kassfeldt, G. Dave

Thin film thermocouple arrays for sliding surface temperature measurement 46
F.E. Kennedy, D. Frusescu, J. Li

On the modeling of multi-body interaction problems in tribology 55
M.M. Khonsari

Maintenance tribology: its significance and activity in Japan 63
Y. Kimura

Transient non-Newtonian elastohydrodynamic lubrication analysis of an involute spur gear 67
R. Larsson

Fatigue life reduction due to wear in boundary lubricated spherical roller thrust bearings 74
U. Olofsson

Wear simulation with the Winkler surface model 79
P. Põdra, S. Andersson

Phospholipids as boundary lubricants in wear tests of prosthetic joint materials 86
V. Saikko, T. Ahlroos

Modelling rotary lip seals 92
R.F. Salant

A scheme for hybrid molecular dynamics/finite element analysis of thin film lubrication 100
T.-L. Sham, J. Tichy

Numerical Investigation of tri-pad sliders and comparison to other slider designs 107
H. Stenberg, M.H. Wahl, F.E. Talke

Elsevier Science S.A.

Experimental investigation of the effect of shaft heating and cooling on single bore journal bearing 112
T. Syverud, M. Tanaka

A review of 'contact recording' technologies 118
F.E. Talke

Cavitation in noncircular journal bearings 122
B. Vincent, P. Maspeyrot, J. Frene

Rotordynamic analysis of a vertical pump with tilting-pad journal bearings 128
M.F. White, E. Torbergsen, V.A. Lumpkin

Author Index of Volume 207 137

Subject Index of Volume 207 139

The publisher encourages the submission of articles in electronic form thus saving time and avoiding rekeying errors. A leaflet describing our requirements is available from the publisher upon request.